

Appln. No. 09/890,550
Amendment
Reply to Office Action dated November 27, 2002

Docket No. 2000-22

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GROUP 1700

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-27. (Cancelled)

28. (Withdrawn)

29-40. (Cancelled)

41-42. (Withdrawn)

Amended

1 43. (Currently amended) A wafer grinder table having a grinding surface for grinding a
2 semiconductor wafer held on a wafer holding plate, the table including comprising:
3 a plurality of base materials, each of which is a ceramic-metal composite formed
4 by impregnating metal silicon in opened ~~holes~~ pores of a porous body made of
5 silicon-containing ceramic;
6 a bonding layer formed from the metal silicon to bond the base materials; and
7 a fluid passage formed in a bonding interface of the base materials.

1 44. (Previously added) The wafer grinder table according to claim 43, wherein, in
2 the ceramic-metal composite, the porous body includes silicon carbide crystals with an
3 average grain diameter of 20 μ m to 100 μ m, has a porosity of 10% to 50%, and has a
4 thermal conductivity of 160W/m²K or more, and wherein 100 parts by weight of silicon
5 carbide is impregnated with 15 parts by weight to 50 parts by weight of the metal silicon.

1 45. (Currently amended) The wafer grinder table according to claim ~~44~~ 43,
2 wherein the silicon carbide crystals include 10vol% to 50 vol% of fine silicon carbide
3 crystals, which have an average grain diameter of 0.1 μ m to 1.0 μ m and 50vol% to 90vol%

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4 of rough silicon carbide crystals, which have an average grain diameter of 25µm to
5 150µm.

1 46. (Previously added) The wafer grinder table according to claim 43, wherein the
2 bonding layer has a thickness of 10µm to 1500µm.

1 47. (New) A wafer grinder table having a grinding surface for grinding a
2 semiconductor wafer held on a wafer holding plate, the table ~~including~~ comprising:
3 a plurality of bonded base materials, each formed from a silicon carbide-metal
4 composite; and
5 a fluid passage formed in a bonding interface of the base materials.

1 48. (New) The wafer grinder table according to claim 47, wherein the silicon
2 carbide-metal composite has a porous structure formed by silicon carbide crystals that
3 includes opened pores, wherein the opened pores are impregnated with metal, wherein
4 the silicon carbide crystal average grain diameter of 20µm or greater, a porosity of 30% or
5 less, and a thermal conductivity of 160W/m*K or more, and wherein 100 parts by weight
6 of silicon carbide is impregnated with 15 parts by weight to 50 parts by weight of metal.

1 49. (New) The wafer grinder table according to claim 47, wherein the silicon
2 carbide-metal composite has a porous structure formed by silicon carbide crystals that
3 includes opened pores, wherein the opened pores are impregnated with metal, wherein
4 the silicon carbide-metal composite has a silicon carbide crystal average grain diameter
5 of 20µm to 100µm, a porosity of 5% to 30%, and a thermal conductivity of 160W/m*K or
6 more, and wherein 100 parts by weight of silicon carbide is impregnated with 15 parts by
7 weight to 50 parts by weight of metal.

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